

What is claimed is:

1. A method of separating cells in a centrifuge comprising:
providing a cell suspension in a processing bag;
separating the cells into a fraction enriched with specific cells by centrifugation in a centrifuge;
transferring the enriched fraction to a storage bag via an outlet tube;
adapting said outlet tube in a position having a radially inwardly directed flow and having a valve associated therewith;
whereby said step of transferring said enriched fraction through said outlet tube occurs upon activation of said valve into open position.

2. A method according to Claim 1 in which said activation of said valve into open position occurs during centrifugation.

3. A method according to Claim 1 in which said cell suspension includes a buffy coat and said enriched fraction is a light-weight fraction enriched with platelets.

4. A method according to Claim 1 in which the transferring of said enriched fraction through a first radially positioned portion of said outlet tube having a radially inwardly directed flow includes diverting said radial flow into a peripheral flow via a cell trap having an enlarged section for maintaining specific cells.

5. A method according to Claim 1 in which the transferring of said enriched fraction through said outlet tube includes transferring through at least one enlargement formed in said outlet tube for separation of more dense cells.

6. A method according to Claim 1 in which the transferring of said enriched fraction through a first radially positioned portion of said outlet tube having a radially inwardly directed

flow includes flowing through said valve and through a second radially positioned portion of said tube having a radially outwardly directed flow.

7. A method according to Claim 1 in which said cells are platelets or stem cells.

8. A method according to Claim 1 in which said cells are red blood cells.

9. A method according to Claim 1 in which said valve is a manually activatable clamp.

10. A method according to Claim 1 in which said valve is a magnetically activatable valve.

11. A method according to Claim 1 in which said valve is an electromagnetically activatable valve.

12. A bag assembly for separation of cells in a centrifuge comprising:
a processing bag intended to contain a cell suspension and to be placed in a centrifuge for separating the cells into a fraction enriched with specific cells by centrifugation;
a storage bag; and
an outlet tube for transferring said enriched fraction to the storage bag;
whereby said outlet tube is adapted to be placed in a position having a radially inwardly directed flow and adapted to be engaged by a clamping member on said centrifuge which provides for transferring said enriched fraction through said outlet tube upon activation of said valve to open position.

13. A bag assembly according to Claim 12 in which said outlet tube is adapted to be engaged by said valve and activated into open position during centrifugation.

14. A bag assembly according to Claim 12 in which said outlet tube comprises a chamber forming an enlargement at the outlet tube.

15. A bag assembly according to Claim 12 in which said outlet tube is provided with spaces having stagnant flow.

16. A bag assembly according to Claim 12 in which said cells are platelets or stem cells.

17. A bag assembly according to Claim 12 in which said cells are red blood cells.

18. A bag assembly according to Claim 12 in which said clamping member is a manually activatable clamp.

19. A bag assembly according to Claim 12 in which said clamping member is a magnetically activatable valve.

20. A system for separation of cells comprising:

a centrifuge device; and

a bag assembly which is adapted to be disposed in said centrifuge, said bag assembly including:

a processing bag intended to contain a cell suspension and to be placed in a centrifuge for separating the cells into a fraction enriched with specific cells by centrifugation;

a storage bag; and

an outlet tube for transferring said enriched fraction to the storage bag;

whereby said outlet tube is adapted to be placed in a position having a radially inwardly directed flow and adapted to be engaged by a clamping member on said centrifuge which provides for transferring said enriched fraction through said outlet tube upon activation of said valve to open position.